

# Cephalosporins

**MOA:** Binding to PBPs; Inhibits transpeptidation; preventing crosslinking of the bacterial cell wall (*Same with penicillin, Imipenem, meropenem, aztreonam*)

**Mechanism of resistance:** Production of penicillinase; Structural change in PBPs; Change in porin structure (*Same with penicillin*)

Gram positive, some gram negative; Surgical prophylaxis

Better gram negative coverage

Management of sepsis and meningitis (except Cefoperazone); Broad spectrum

Available in IV only; Beta lactamase resistant

## 1st generation:

Cefazolin  
Cephalexin

## 2nd generation:

Cefotetan  
Cefaclor  
cefuroxime

No activity against: (LAME)  
Listeria  
Atypical bacteria  
MRSA  
Enterococci

## 3rd generation:

Ceftriaxone  
Cefidininir  
Cefixime

## 4th generation:

Cefepime